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ABSTRACT

This manual describes the model--specifically the observation procedures and coding systems--used in a longitudinal study of how children learn to comprehend what they read, with particular emphasis on science texts. Included are procedures for the following: identifying students; observing--recording observations and diagraming the room; writing transcripts--noting instructional and noninstructional utterances, and reporting other than whole-class instruction; updating, coding, and storing rosters; preparing coding sheets; and assuring reliability. Codes and categories describing the following are defined: group and individual student-teacher interactions--frequency of group meetings and combined groups; noninstructional time--teacher directed instruction, including all other subject areas, adult reading, teacher assigned centers, and testing; teacher-initiated instructional interactions (questions and statements) regarding vocabulary, sequencing, paragraph comprehension, spelling, grammar, or repetition of a word; and teacher feedback--praising, ignoring, or requiring homework. Also included are examples of transcripts, coding sheets, references, and graphic presentations of the model. (LLZ)

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CENTER FOR THE STUDY OF READING

Technical Report No. 381

OBSERVATION AND CODING MANUAL FOR THE LONGITUDINAL STUDY OF READING COMPREHENSION AND SCIENCE CONCEPT ACQUISITION (Third Edition)

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(Longitudinal Study Report 1)

December 1985

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Abstract

This manual presents the structural and measurement models for the Longitudinal Study of Reading Comprehension Development and Science Concept Acquisition in progress since fall, 1983. In addition, the manual presents a detailed description of the procedures used to collect and code the classroom observation data.

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We also want to thank the administrators, teachers, parents, and students in the three school districts participating in this study. They accepted us to their classrooms. Delores Plowman prepared this manuscript and retained her title as pathfinder and typist.

Observation and Coding Manual

for the

Longitudinal Study

Introduction and Overview

The Longitudinal Study of Reading Comprehension Development and Science Concept Acquisition is an examination of children's school entry performance, teachers' behaviors, instructional materials, and home support for literacy and science knowledge. We will build a causal model to explain how children learn to comprehend what they read and their knowledge of science from variables measured in each of these areas. We are particularly interested in how children learn to comprehend science text. Toward this goal we will develop measures to assess students' schema acquisition in several scientific domains during the course of this study. We hope to follow two cohorts of students from kindergarten through fifth grade in three school districts.

The purpose of this manual is to describe the observation and coding systems used in this study. The manual is not intended to be a stand alone training instrument. Many of the examples are drawn from the first year of the study and therefore our observations of kindergarten instruction, though we will use these systems for the entire study. The focus of these observations is on the teacher, particularly the teacher's instructional, verbal interactions with individuals, small groups, and the whole class.

The specific teaching behaviors of interest are those defined by the measurement models that appear in the Appendix. The model consists of teaching behaviors supported by empirical research, particularly the work of Stallings and Kaskowitz (1974); Fisher, Filby, Marliave, Cahen, Dishaw, Moore, and Berliner (1978); Anderson, Evertson, and Brophy (1979); Barr (1983); Meyer (1984) and experience that suggested the importance of teachers' instructional interactions, particularly the frequency and sequences of questions and directive statements and feedback to correct and incorrect responses.

The classroom observation techniques and continuous coding systems for literary activities were designed for this study, although several of our categories emerged from correlational and experimental studies designed by Stallings and Kaskowitz (1974); Brophy, Mahaffey, Greenhalgh, Ogden, and Selig (1975); Soar (1973) and others. Earlier work by Pearson and Johnson (1978), LaBerge and Samuels (1977), Raphael (1980) and Meyer (1984) specifically related to decoding and reading comprehension helped to define our categories of reading instructional interactions. The next section of this report explains why we chose to study classrooms as we did.

Observation Schedule

There is some concensus that ever-increasing numbers of entering first graders can read, and that many school districts begin reading instruction in kindergarten. Therefore, the

logical place to begin a study of reading comprehension acquisition seemed to be kindergarten, though at this time there is little kindergarten observational research tied to student achievement. In addition, we anticipated many kindergarten activities would last for short periods of time, and kindergarten schedules would frequently include a variety of activities related to literacy sprinkled throughout the school day. For these reasons, we chose to observe classes for full school days using a continuous coding system. For half-day classes, we observed for 2.5 hours during each observational round. For whole-day classes, we observed the entire school day, or 330 minutes. We observed the morning and afternoon classes of teachers who taught two sessions, and completed nine rounds of observation, for each class, or approximately 25,000 minutes.

We followed the same schedule in the second year of the study when we added a second cohort of kindergarten students and followed the first cohort of students to first grade.

We are primarily interested in those activities related to literacy and science, and in order to capture that instruction we followed this procedure:

1. We tape recorded and made hand-written transcripts of the teacher's instructional interactions. Within each transcript, we noted when the tape recorder was on, and when we flipped or changed tapes.

2. Wherever the children went during their school day (with the exception of lunch, recess, and bathroom) we followed them.

3. We identified each student by identification number and recorded that student's number in our transcript whenever the teacher called on her/him. We also coded interactions with small groups or the whole class in this way.

4. When the teacher was not directing instruction, our observational procedures changed to sweep the classroom every five minutes. During these sweeps, we recorded whether or not each child was engaged in whatever activity she/he was assigned.

5. When the teacher interacted with an individual or group to praise or criticize their non-instructional performance, we tallied those interactions in the top margin of the current transcript page.

6. We kept running track of the time of day in the left-hand margin of each notebook. We made a time entry whenever an activity changed, or at the top of each new page of transcript.

With this system, at the end of each day of observations, we had a near-complete transcript of the school day that later allowed us to examine how much time teachers spent in various activities, how they managed their classrooms, and the frequency and types of interactions they had during instruction. These procedures also allow us to examine the teacher's instructional interaction sequences within activities.

At the conclusion of each observation, we interviewed each teacher and asked these questions: (1) Was this a typical day? (2) Have there been any interruptions since we were here last? (3) Are there any roster changes or new groupings of children since our last visit? (4) Are there any new instructional materials?

The next section of this manual presents the sequence that an observer followed during each observation. This information is presented primarily for training new members of the observation team.

Preparing to Observe

Materials

Observers needed these materials for each observation: a tape recorder, recharged battery pack, audio tapes, the teacher's notebook(s), 2 pens, name and number tags for each assigned class of children, and an alphabetical (by first name) roster for each classroom. For two half-day classes observers needed about two one-hour tapes for each class. For full day kindergarten classes, two tapes were also sufficient.

Identifying students. Observers prepared alphabetical (by first name) lists of students in the classes assigned to them. These lists were kept in the back of the class notebooks. We used these lists during each observational round. Observers also made nametags for each child to wear during the first few rounds of observations. These nametags had both the students' names and

numbers. The nametags were made either to go around the children's necks on a piece of yarn, or to pin on the backs of their shirts. When there were two children in one class with the same first name, we differentiated them with the first initial of their last name on their nametags. During the first round of observations, we substituted the children's nicknames for the "real" names on any rosters and nametags, and made the changes in our official rosters.

Notebooks. Observers had one notebook for each class. On the front of the notebook, we recorded: Teacher's name (including AM or PM for kindergarten teachers); Cohort #; and Observational Rounds found inside, e.g., 1 - 7, and the regular observer's #. Observers used a black ink pen for writing all transcripts because this color copied best. We also found razor point pens were the easiest to write with.

Observers set up their notebooks before going into the classroom. Each page had a heading, that looked like this:

PI PG CI CG

These headings were for tallying the teacher's praise and critical statements to individuals and groups of children. We numbered about a dozen pages prior to each observation. The transcript pages for each observational round were numbered consecutively from 1 to whatever page it ended on and the date was entered on each page. On the first page, the heading

included the name of the teacher, including AM or PM, when appropriate, and the observational round number.

Observing In Classrooms

Observers arrived at school in time to get into the classroom at least five minutes before the students arrived. These few minutes were used to get set up before the school day began. Setting up included locating electrical plugs and readying other equipment. Observers sat close enough to their tape recorders to hear them click off, or to intervene quickly in case of a mechanical failure, while remaining unobtrusive. We labeled audio tapes. On the first side of the tape, and on the spine of the tape's box we recorded this information:

Round _____ Teacher _____

Side(s) _____ Date _____

Then, we numbered the side of each tape, consecutively as the observation progressed.

Positioning. Observers picked a place to set up in each classroom that allowed them to see all the way around the room with little or no need to move during the day. The less the observers moved, the less they disrupted the regular classroom activity. The classroom clock was used as reference for school time whenever possible. Observers first marked the starting time for the class in the left-hand column on the first page of their transcript. We always used the same starting time for each class. Thus, all half-day morning classes began at 8:30, for

example. Next, observers wrote TAPE ON, and put a box around it on the top line of their first notebook pages. Then, as the teacher took attendance, the observer wrote the identification numbers of absent students at the top of the page. In this way, we knew later if a child was actually absent or simply not called on during a day's instruction. As school started, our notebooks looked like this. A typical notebook page appears as Figure 1.

Insert Figure 1 about here.

Observers left their notebooks open and their equipment out during each observation. They offered their notebooks to teachers during their first observations and demonstrated and discussed how they made a transcript of the day's instruction.

Room diagram. During the first observation, the observer drew a diagram of the classroom. These diagrams included the location of important things such as bookcases, tables, play areas, windows, blackboards, and so on. Observers identified the tables (or desks), and play areas by number in their diagrams so that later we could code those areas quickly as PA 1 for Play Area 1, or t1 for Table 1, for example. Diagrams included where written work was displayed, as well as where books, charts, letters, sounds, individual words, and other things related to literacy were located.

Seating charts. If a teacher used assigned seats for activities, we recorded those seating patterns in our diagrams. We used terms like "green rug," or an abbreviation, "gr" to designate areas of the room. These abbreviations helped observers to keep up with the teacher's interactions as we made our scripts. Figure 2 is a typical room diagram.

Insert Figure 2 about here.

Schedules and abbreviations. Observers asked teachers for copies of their daily schedules during their first observation. If the teacher did not have a written schedule, we didn't pursue the issue. But, the written schedules helped us name activities and anticipate the instructional flow of activities. We also asked teachers to save us copies of their class pictures. These pictures helped to identify students.

Observers anticipated words they would use often, and abbreviated them in their transcripts. We used obvious abbreviations such as T for the teacher, and when there was an aide in the classroom, we designated her/his interactions with an A. We kept lists of other abbreviations in the back of each class' notebook.

Anecdotes. We also kept a list of anecdotes in the back of our notebooks. Here we entered things children said that were particularly entertaining, or other things that we hoped would

later help us to paint accurate pictures of life in these classrooms. For example, during one of the first classroom observations, a child asked what the observer was doing. The observer responded that she wrote down everything the teacher said and kept track of what everyone did. The child then said, "Tough job!" Out of the mouths of babes . . .

Remaining unobtrusive. Before beginning this study, we pledged to administrators and teachers that we would not intervene in their classrooms, and that we would remain as unobtrusive as possible. Thus far, we have had successful relationships with our administrators, teachers, and students, and this success may be due in part to defining our roles as guests in the schools where the principals were in charge. For this study to continue to function, we recognized the importance of ongoing cooperation from teachers, administrators, and children. We assume the importance of maintaining rapport.

We alternated our roles with both teachers and children as we switched from observing whole classrooms to interviewing teachers or testing children. So, we posed as unobtrusive observers during classroom observations, speaking only when spoken to. But, when teachers called upon us in emergencies, we assisted.

Throughout the study we will wear two hats with children and teachers, and it is impossible to change this. So, we may continue to be more distracting to the children than their

teachers. In fact, several teachers have commented on how quickly they forgot about us. But, while teachers appeared to relax with us fairly quickly, children often continued to seek us out.

At the conclusion of each day, in order to interview a teacher, the observer's role changed. As an interviewer the observer worked to establish rapport so teachers were at ease and open for the interview. If teachers asked us about aspects of their programs, we tried to respond in innocuous, non-judgmental ways with something like, "We are interested in everything you do related to literacy and science." We wanted to convey to them that we wanted to observe typical teaching.

Transcript Writing

Teacher-Directed Instructional Activities

Throughout the school day, observers wrote each instructional, directive statement and question teachers spoke during activities designated as related to literacy and science. We did not code everything that went on in a classroom, but we did code instruction in science, decoding, social studies, writing, language, small group reading, preparation for individual work, show and tell, adults reading, and preparation for teacher-assigned centers. During each of these activities, the observers wrote precisely what the teacher said, and to whom he/she said it. If student(s) responded correctly, we put a check mark after the teacher's question/directive interaction.

If a child/children gave a wrong response, we wrote that response, and what the teacher said next. If students didn't respond at all, we indicated this with a dash.

General management. When the teacher made general management statements to praise or criticize individuals or groups, we tallied these statements at the top of the appropriate transcript page. Each time a teacher mentioned a different child's name, we counted that as praise or criticism to an individual. When a teacher continued to direct attention to one child, each time the teacher's question or directive statement required a different response from an individual or small group, we tallied the interactions separately. For example, if a teacher said "William . . . William Tucker I told you to sit down," we made two marks under CI, Criticism to an individual, because first the teacher called out to get William's attention and then the teacher told William what to do. Each time a teacher said, "shshsh," we counted this as a critical statement just as "very nice," "I like the way Alicia is sitting," or "The Yellow Triangle table is quiet first," all counted as praise statements to individuals or groups of students. Therefore, general behavioral or managerial statements were measured (one for one) in the same way the teacher's instructional interactions were measured. The teachers' frequencies for praise and criticism to individuals and groups yielded an index of how a teacher managed his/her classroom.

Timing transition time. We were particularly careful to record the time when teachers said something to signal a change in activities. "Get ready to move to your next Center," or, "Start cleaning up now," were typical statements indicating the beginning of a transition. Then, we recorded the time between the first statement and when students were engaged in their next activity as Transition Time.

Other Activities

Descriptions. The only time a transcript reflected a description instead of precisely what the teacher said was when we recorded where the teacher or teacher and students were (e.g., teacher and students on the green rug). All descriptions of this type were set aside in parentheses. If children left the room for special instruction, we put that information in parentheses. If a child burst into tears, we noted that. In other words, we put only things that reflected important events or movement in the room and the overall instruction in parentheses.

As we wrote transcripts, we entered one question or directive on each line. And, while in the classrooms, we left room for entries to complete from audio tapes. We had a lot of fun at the beginning of the year with one observer's system--stapling strips of paper with additional interactions into her notebook. She often had many strips flapping in the breeze. It was a workable system, but we learned to leave space in our notebooks to fill in later. With each interaction on a separate

line, it was easier to code each entry. It was also easier to look at a sequence of what a teacher said as well as the frequency of their instructional interactions and feedback. A single entry per line also made it easier to analyze instructional sequences.

A sample first page of a transcript follows as Figure 3. Note the headings, time, and entries. The letter codes and numbers in the left margin were added to photocopies of completed transcripts.

Insert Figure 3 about here.

Figure 3 is a page from a decoding activity. The starting time is in the left margin at the top of the page. The tallies under PI, PG, CI, and CG are in the top margin. The transcript has one question or directive per line.

During our practice observations, we tape recorded and wrote transcripts for every activity we thought we might code. It was more efficient to capture as many of the interactions as possible while in the classroom than it was to depend upon returning to audio tapes to complete large segments of transcripts. Therefore, we spent most of our observation time looking down at our notebooks and alphabetical by first name lists of students, writing precisely what the teacher said and to whom.

Classroom sweeps. As soon as the teacher's attention shifted to less than the whole class, our observational

procedures changed. We noted the time that this change occurred, and then five minutes later completed the first sweep of the classroom. We used abbreviations for areas of the classroom. We noted who was in Play Area 1, Play Area 2, for example, as well as who was at Table 1, Table 2. We tried to record where each child was, although this was not always possible because children frequently changed location within sweeps.

The instant we looked at a child we decided whether or not he/she was engaged. It was important to decide on each child's engagement when first looking at her/him because it often happened that if we watched a child for more than a few seconds, his/her attention shifted. Children who had been engaged frequently became disengaged, and vice versa. Children who were not engaged might have been doing one of the following things: staring into space, wandering around the room, watching an activity in another area, etc. We recorded in our transcripts the number of children off task in each of the designated areas of the classroom. See the example in Figure 4.

Insert Figure 4 about here.

During each sweep (every five minutes) we were primarily interested in the number of children who were off task (not engaged) in activity. Some classrooms had teacher-directed centers, and others had children's choice activity time. While

activities during non-teacher directed time differed from school to school, our procedure for counting children's engagement was the same. We simply wanted to know what percentage of the class was engaged during each five minute sweep. Our activity codes differentiated free choice from teacher-directed activities.

We swept a classroom every five minutes. In the left margin we wrote SWEEP, and the number of the sweep. We kept a running count of sweeps for each observation. We wrote the number of children off task during the sweep as "x," OT. If an activity period lasted for twenty minutes or so, our transcripts looked like the sample in Figure 5.

Insert Figure 5 about here.

The exit interview. As soon as the children left for the day, we began the exit interview. We asked teachers the following questions and recorded their answers in our notebooks after the final line of transcript, or the notation for dismissal. The first question was, "Was this a typical day?" If the teacher said it was atypical, we asked him/her to explain what had made it unusual. We followed the same procedure to ask about interruptions, and we paid particular attention to school time out for holiday performance practice, snow days, and teacher absences. If a teacher told us about new children, instructional groupings, procedures, or materials, we questioned for further

information. An exit interview usually took less than ten minutes.

If several observers were in the same school in different classrooms on the same day, we kept the teachers apart during their interviews. We wanted each teacher to respond independently, without being influenced by the others.

Group & Individual Student Codes

Whole-classes and small groups. When teachers conducted whole-class instruction, they often directed interactions to all students. All of these interactions were coded 99. We developed a series of codes for small group interactions that told us if the group were homogeneous or heterogeneous; how many groups there were in the class, and whether or not the teacher met the group each day. When teachers directed interactions to heterogeneous small groups, these were designated with an 800's code. The first digit, 8, designated the heterogeneity of the group. The second digit identified the group, and the third digit which ranged from 1-6 showed the number of groups in the classroom. Therefore an 833 group was the third heterogeneous group of three groups in the classroom. When teachers grouped students homogeneously for instruction, we numbered the groups sequentially, by ability. 91's were the lowest-performing groups, 92's the next lowest-performing groups, and so on. One kindergarten teacher had six groups, 91-96 for example. To indicate the number of groups in each classroom, we again added a

third digit. Thus, if there were 4 heterogeneous groups in the class, these designations were 814, 824, 834, and 844. Five homogeneous groups in a class were identified 915, 925, 935, 945, and 955.

Instructional frequency codes. We also designated the teachers' patterns for meeting their instructional groups. If teachers did not regularly teach each group every day, we added an 8 to the group's number. Thus, a class with four heterogeneous groups that met daily were coded 814, 824, 834, 844 while four heterogeneous groups that did not meet daily were coded 8148, 8248, 8348, 8448. Homogeneous group codes followed the same pattern.

Thus, each digit in a small group's number had a function. 815 designated a heterogeneous small group, one of 5, that met daily whereas 9248 designated the second lowest-performing group in a class of four groups that did not meet daily.

Instruction to combined groups. Occasionally, teachers combined small groups for instruction. We coded these turns with a 9338 if they were homogeneous, or 8338 if they were heterogeneous, and then carefully recorded the students' individual numbers to show their membership in the large group that day. Teachers rarely combined groups, and it therefore made sense to code these special combinations in this way rather than by setting up special numerical codes.

Individual students. Turns to individual students were always coded with the student's unique number. These numbers identified the school district, kindergarten classroom teacher, and individual.

Turns to all the girls or boy. Occasionally teachers allocated turns to all of the boys, or all of the girls in the group or room. Turns to the girls were coded, and turns to the boys were coded.

Completing Transcripts

Within 48 hours after each observation, we returned to the transcript and audio tapes (if necessary) to transcribe interactions during the observation where the transcript was incomplete. The audio tapes were used primarily as back-ups, for it was preferable to complete most of the transcript during live observations. When this was not possible, we returned to tapes and to complete the transcripts. At this time we also completed abbreviations made during the live observations.

Updating Rosters, Coding, and Storage

Updating rosters. We updated whole class and small group rosters immediately after each observation.

Photocopying and storage. As soon as the transcripts were completed we photocopied our notebooks. From this point on we worked from the photocopies, and only the copies left the office.

Coding. We coded the transcripts first to identify the time an activity began, second, to name the activity, and third, to

number and code each line (or sequence) of instructional interactions. We blocked the minutes between when each activity began and ended in the left margins. We wrote the name (or abbreviation) of the Activity, and the elapsed time (the length of time the Activity took) in the margin. All teachers began with some type of "Opening Exercise," so this was always the first activity of the day.

This was the flow for coding instructional interactions. First we identified the activity that took place, then we determined the kind of interaction the teacher initiated, we next coded the kind of feedback (if any) the teacher gave, and finally to whom the teacher directed the interaction. Therefore, we coded each instructional interaction into a sequence that looked like this:

Activity...Interaction...Feedback...To whom

Each question or directive statement the teacher made was on a separate line as in Figure 6.

Insert Figure 6 about here.

This is a coded segment of Teacher-Directed Instruction. The teacher used a mixture of questions and directive statements to individual students and to the whole class. This portion of the transcript is lines 1 through 17. It lasted 9 minutes. The teacher was reading a story.

Activity Categories: Non-Instructional Time (10)

To code the observational data, the first task was to name the activity. We wrote the name of the activity in the margin of the transcript. Each activity and its definition follow. The number in parentheses at the end of each description will be explained later to transfer coded transcripts to coding sheets for data entry.

Snack, lunch, rest, recess, and bathroom are all activities that we collapse into non-instructional time. These are primarily social, or business times during which teachers gave simple directions to students. (11)

Free play. Children choose an activity and then are relatively unsupervised. These activities may include block building, water play, dramatic play, playing grocery store or dolls, or playing with games. (12)

Opening/Closing Exercises. The first few minutes and the final few minutes of each day are spent in opening or closing exercises. These activities include taking attendance, collecting milk money, exchanging notes, distributing papers, making announcements, and a host of other things. (13)

Transition. Transition time is those minutes between the teacher's first statement or signal to end one activity and the teacher's first statement or signal to begin the next activity. During this time all children may be involved in cleanup activities, or some children may ready themselves quickly for the

next activity and then spend time waiting for the next activity to begin. (14)

Teacher-Directed Instruction

In each of the activities that follow, the teacher is directing the class either in small groups, or as one group.

Art. Activities clearly related to drawing, painting, or other expressive work. Teacher gives instructions, and children work on an assigned project, while making some choices about their work. (21)

Music. Children singing or playing instruments. Several classes may be together. Music may take place with records, a piano, instruments, or a capella. (21)

Cut and paste. Children working from teacher-prepared materials, cutting and pasting, often with copious quantities of paste or glue. (21)

P.E. Organized physical activity by designated physical education teacher (someone other than classroom teacher). (21)

Science. Instruction focused on animals, health, plants, or other topics of natural or physical science. Instruction may evolve from textbooks, films, tapes, or other materials. (22)

Decoding. Teacher instructs a whole class or heterogeneous groups. Teachers most often work with one or perhaps two groups a day, but they do not see all instructional groups daily. Activities are frequently focused on letter names, letter sounds,

beginning consonants, or final consonants. Very little, if any word or sentence reading takes place during this activity. (23)

Math. We have not coded those activities clearly related to math. These activities might include symbol or shape identification, conceptual work on arithmetic operations, counting practices, or story problems. (24)

Social Studies. This activity includes work on holidays as well as information presented from a text or other materials pertaining to history, geography, the neighborhood, or the family. (25)

Writing. Handwriting activities are clearly focused on the improvement of penpersonship. Work might be done from or on the chalkboard, dittoes, worksheets, or with pencil and paper. (26)

Language. Oral or written language activities can focus on production, repetition, or mechanics such as usage, capitalization, or punctuation. (27)

Small group decoding. Teacher schedules all groups daily. This instruction is on words in isolation, usually from flash cards, or word lists from the chalkboard or charts. (28)

Small group reading. Teacher schedules all groups daily. Children work from student materials, usually books, each child looking at his/her own text. (29)

Workbook assignments or checks. Teacher schedules all small groups daily. Children work from workbooks or worksheets the

teacher distributes. These materials are usually tied to the text used in small group reading. (30)

Teacher-assigned Centers. Teacher directs individuals or groups of children to designated centers and groups may rotate to several (but not all) centers each day. These centers may have an academic or non-academic focus. The teacher working with a group is one center. (31)

Show & Tell. Individual children called upon by teacher (or rotated in established sequence) talk about or show something, usually to the entire class as the teacher asks questions. (32)

Adult Reading. Teacher, Librarian, Teacher's Aide, or another adult reads to children. Adult reading includes records or tapes of reading with an adult asking questions or monitoring answers to questions from the tape or record. (33)

Independent work Preparation. Explanations directed to an entire class to designate what and how children are to work at on their own. This preparation usually takes place immediately before children go to centers or to work independently as a whole class at their respective tables/desks. May include decoding, math, or other activities. (34)

Test taking Practice. Teacher provides practice to prepare children for criterion-referenced or norm-referenced tests. Teacher may present exercises as a whole class or small group activity. Children may also work individually on worksheets. (35)

Library. Time class spends in the library under the direction of the classroom teacher or a school librarian. (36)

Spelling. Time spent practicing or testing word spelling. Activities might derive from chalk-board or textbook exercises, or materials prepared by the teacher or classroom aide. (37)

Writing. Time spent on compositions, not to be confused with handwriting practice (26). Writing may include composition of friendly or business letters, book reports, stories, etc. (38)

Language Experiences. Time teacher spends guiding students to produce, read, review, or discuss a story or experience chart produced cooperatively by one or more of the students and the teacher, of classroom aide or student teacher. (39)

Individual, Independent Work. Children working at tables or desks. Teacher may be roving around giving individual feedback, or teacher may be engaged in other activities. (40)

Sustained silent reading. Time during which the teacher directs students to select a book or books and read them silently for X amount of time. (41)

Individual reads to class. One child, or several children in sequence read orally to the remainder of the class. Typically, students will read a portion of or an entire book of their choice. (42)

Other. Movie, party, rehearsal, etc. Activities involve watching recreational movies, celebrating holidays, or practicing for performances. (51)

Testing. Teacher is testing small groups, individuals, or the whole class. May be criterion-referenced, teacher made, or norm-referenced tests. (52)

Instructional Interaction Categories

All of these instructional interactions are teacher-initiated. These are the categories for classifying each question or directive statement teachers make. Observers use the abbreviations in parentheses to code transcripts. Occasionally, we have coupled instructional interactions that are closely related and appear infrequently together. Coupled interactions share numerical codes.

Background Knowledge (BK). Adult or children reading. Source of information for answer is from children's experience beyond the instruction taking place at the time the teacher asks these questions. (11)

Vocabulary (VOC). Adult reads or talks, but pauses to ask a question or to explain a word or phrase. (12)

Text Explicit (TE). Adult is reading. These questions are explicitly answered in the text. The answers may be in illustrations, or in the words of the text. These answers are "right there," to borrow a tried and true CSR term. (13)

Text Implicit (TI). Adult is reading. These questions are answered in the text but the children must put information together. These answers can be figured out from the text if children "search and find," to use another CSR term. (14)

Opinion (O). Either the teacher or students read. These questions ask children to decide something, often related to their own experiences, or potential experiences. A typical opinion question is, "Do you think you would like to _____?" This question moves from the text to seek a group's or individual's opinion. (15)

Sequencing/Prediction (SEQ/PREDIC). Either teachers or students read. Questions that require students to sequence events or actions from a story, or to predict an outcome from an action taking place in the story are sequencing and prediction questions. (16)

Word Comprehension (WC). Student(s) read a word, and then the teacher checks their understanding of the meaning of that word. For example, children read the word, "mat." Teacher asks, "What is a mat?" (17)

Sentence Comprehension, Text Explicit (SC,TE). Student(s) read a sentence, and then the teacher checks their understanding of the meaning. For example, after children read, "Tom and Mary went to the store," a teacher asks, "Who went to the store?" or "Where did Tom and Mary go?" (18)

Sentence Comprehension, Text Implicit (SC, TI). Student(s) read a sentence and then the teacher checks their understanding of things stated implicitly in that sentence. (19)

Summaries (Sum). Student(s) read a passage and then the teacher asks them a question about the whole passage that requires them to summarize information. (20)

Instruction, Directives

Procedural instructions or questions (PI, PQ). These are following-direction interactions. "Open to page 17. Put your finger on the first picture in the blue box," is an example of procedural instructions. Many instructions or directives occur with worksheets, but they are not necessarily tied to text. (21)

Paragraph Comprehension, Text Implicit. Child reads a paragraph and teacher asks a text implicit question that requires student to search the text and integrate information ir order to answer the question. (22)

Story Grammar Referents

Children read text a paragraph or more in length. These are particular types of text explicit and text implicit interactions. These categories override the more general categories in the "Comprehension" category. (30)

Setting (SET, TE). Text explicit questions about time, place, or a supportive detail in a story. (31)

Plot (PLO, TE). Text explicit question about an initiating event, the story's climax, or resolution. (32)

Character (CHAR, TE). Text explicit question about a character. (33)

Theme (THE, TE). Text explicit question about the main idea of the story, or a question that requires students to summarize the story. (34)

Setting (SET, TI). Text implicit questions about time, place, or a supportive detail in a story. (35)

Plot (PLO, TI). Text implicit question about an initiating event, the story's climax, or resolution. (36)

Character (CHAR, TI). Text implicit question about a character. (37)

Theme (THE, TI). Text implicit question about the main idea of the story, or a question that requires the students to summarize the story. (38)

Categories 31-34 and 35-38 depend upon whether or not the answers appear explicitly or implicitly in the story.

Other (40)

General Probe (GP). Teacher probes to see if child wants to say more, e.g., "Anything else you want to tell us?" (41)

General Review (GR). To qualify as a general review question, the teacher must say something to demonstrate that this topic (concept, rule, procedure, etc.) was taught previously. E.g., "Two days ago we talked about . . ." (42)

Correcting Work (CW). Teacher says something (frequently unintelligible to the observer) while correcting work, usually to an individual. (43)

Decoding (50)

Letter Sounds (LS). These are questions or directive statements to children to identify consonants, vowels, or endings by SOUND. E.g., "What sound does this letter make?", or "What sound do you hear at the beginning (end, or middle) of this word?" Initial or final consonant questions are in this category. (51)

Whole Word (WW). Teacher has child/children identify a word simply by looking at it. Teacher may ask, "What word?" and then say nothing more. Whole word reading may or may not be followed by word comprehension. (52)

Letter Naming (LN). These categories include naming individual letters, upper and/or lower case symbol identification, letter writing, and tracing. The instruction here is on the NAME of the symbol(s). E.g., "Is this a capital 'N' or a lower case 'n'?", or "Tell me the name of this letter." (53)

Spelling (SPELL). This instruction may be either oral or written. Children or teacher spell words by letter name. E.g., "This word is man, m, a, n." (54)

Rhyming (RHY). This is an oral task. Teacher has children produce a rhyming series. Frequently, the teacher will give the

endings and several initial consonants to have children produce a rhyming series of words. Sometimes, the teacher will begin with a root word and have the children produce just one word to rhyme with it. (55)

Sounding Out Words (SOW). These words are written. They may appear on a chalkboard, in a teacher's presentation book, on cards, or in a teacher's "Big Book." The teacher's instructions require the children to sound the words out. With this instruction, the word me would sound like, "mmmmeeee," for example. These may be real words or nonsense words. (56)

Sentence Reading (SR). Teacher directs student(s) to read a sentence of text. These may be either individual turns or choral responses, and a teacher's directive for turn-taking may be verbal or non-verbal. With established round robin reading, a teacher will often nod to a student to take the next turn, or students anticipate their turns and read in succession. (57)

Paragraph Reading (PR). Teacher directs student(s) to read a paragraph of text. These may be either individual turns or choral group responses, and the teacher's directive for turn-taking may be verbal or non-verbal, as many teachers have established routines for turn-taking in their groups. (58)

Blending (BLEND). This activity is oral. Children are not looking at text, they hear a word and sound it out. Sounding Out Words (#56) on the other hand is instruction in which the children work from printed symbols, usually real words or

nonsense words. Otherwise, sounding out words and blending are quite similar. During blending instruction a teacher might say, "Ram. Say the sounds in ram (or, sound out ram)." Then children would respond, "rrraaammm," without looking at text. (59)

Oral Language Development

Teacher and students engage in oral instruction (without texts), except for pictures or concrete objects. (60)

Repetition of a word (WR). Teacher says word, then has student(s) repeat word. For example, a teacher says, "Apple, everyone say apple." The practice is to improve articulation of a word. (61)

Repetition of a Phrase or Sentence (PS Rep). Teacher says a phrase or sentence and then has student(s) repeat it. The practice is to improve articulation of the phrase or sentence. (62)

Production of word (WP). Teacher asks a question or gives a directive and students respond with a single word. A teacher might hold up a picture of a strawberry and ask, "What is this?" Students are expected to say, "strawberry." (63)

Production of Phrase or Sentence (P, SP). Teacher asks a question or gives a directive and students respond with a phrase or sentence. A teacher might hold up a picture of a city and say, "Tell me about two things you see in this picture." Students are expected to respond with phrases or sentences such as, "There are many people and buildings." The goal of these

interactions is to get students to produce phrases and statements. (64)

Grammar, usage, capital letters, punctuation (70)

Parts of speech (POS). Questions or directives about parts of speech: nouns, verbs, adjectives, adverbs, etc. (71)

Usage (USE). Work on subject/verb agreement, or homonyms. (72)

Capital Letters (CAPS). Instruction on capital letters in proper names, beginning of sentence, etc. (73)

Punctuation (PUNC). Questions/directives on commas, periods, question marks, semicolons, and colons. A typical question to kindergarten or first grade children is, "What is that funny mark at the end of the sentence?" or, "What does that mark tell us about what we'll read?" (74)

Phonics rules. Teacher provides or expects students to come up with or use a phonics rule such as the tried and true, "When two vowels go walking, the first one does the talking." (81)

Classification. Interaction requires student(s) to produce a superordinate. For example, teacher might say, "Cars, trucks, motorcycles, and airplanes are all in the class of _____?" This is clearly a classification task, and it will frequently appear in a Language activity, though it might also appear in any one of a number of other activities. (82)

Passage Reading. Teachers directs student to read text longer than a paragraph. The amount of text can vary from two paragraphs, to a page or more. (86)

During instruction, teachers often respond to a child's (or children's) response. All of these teacher responses to responses are feedback. Definitions for teacher feedback follow.

Feedback Categories

Lauds Task (LT). Teachers laud tasks when they say, "Fantastic job! Terrific! Wow! That was very good work," etc. (10)

Calls on Another, Ignores (CA, I). These types of feedback terminate a teacher's interactions with the child first called upon. With "calls another" feedback, a teacher initiates an interaction, the student does not respond, and then the teacher calls on another student. When a teacher ignores an incorrect response, he/she continues instruction, often by asking a new question, without responding to the wrong response. (11)

Repeats; Confirms; Lauds Task (RR, C). Teacher repeats student response, as if to reconfirm it. For example, child responds, "mmmaaat" when sounding out a word, and the teacher responds, "mmmaaat," echoing the student's response. Teachers also confirm student responses by saying, "yes," "good," "ok," etc. (12)

Negating; Is Not (NEG, IN). When a teacher responds "no" after a student response, that is "negating" feedback. A teacher

might also tell a student what his/her answer is not, "That word is not horse, it is house," for example. (13)

Repeats Questions/Repeats Directions (RQ, RD). Teacher repeats questions or directions to the same student, as if the student did not hear. Questions or directions are repeated verbatim, or almost verbatim. (14)

Teacher Models; Gives Answer (TM, GA). A teacher models when he/she demonstrates a task for students. For example, the teacher might say, "Now I'll tell you these sounds, mmm, sss, fff." There is no student response expected after a teacher model.

"Gives answer," simply means that after a student makes an error, the teacher tells the student the correct answer. For example, a student reads, "what" as "that." Teacher says, "What. The word is what." The teacher told the student the word, thereby giving the answer. (15)

Teacher Leads (TL). Teacher works with student(s) through a process, giving them a simultaneous model (practice on) how to perform a task. For example, a teacher might say, "Let's sound out that word together." Then the teacher and students respond, "rrraaat." Or, if, during handwriting practice, a teacher took a child's hand to guide him/her to make a letter, this would also be a teacher lead. (16)

Gives Rule (GR). Teacher states rule. For example, child makes sequencing error, and teacher says, "Always start on the

left side," thereby giving the student a rule for sequencing, and then proceeding with the correction, e.g., "Which side are you going to start on?" (17)

Encouragement; Hint (EN, H). Teacher encourages student. While looking at a handwriting paper, a teacher might say, "Now this time try hard to keep the lower case 'm' in the downstairs." When giving a hint, a teacher might say, "What does that look like? Does it look like an 'm', or does it look like an 'n'?" (18)

Home assignment; Written feedback; Requires homework (HA, WF, RH). These three types of feedback are written or oral. They are responses to work students have completed. A teacher either tells a student to complete more homework of the same type, gives a student written feedback, or makes a homework assignment because of the quality of the students' work. (19)

Quality Dependent (QD). Teacher responds to individuals or small groups of students on the basis of the quality of their work. These statements are usually inaudible to an observer. Therefore, they are categorized as "quality dependent" to show that the teacher responds differently to different responses. (20)

Asks for Explanation (EXPLAN). Teacher asks student to explain his/her answer. (21)

Teacher Extends (TE). Teacher builds on the student's response, usually saying, something like, "And, in addition to

what Kurt has already told us, what else might we say?" Teacher accepts a student's response and then asks for more. (22)

Teacher Suggests, Re-examine (SR). Teacher says something like, "Take another good look," or "Does that really look like x?"

Figure 7 lists the category and numerical code for each type of Activity, Interaction, and Feedback observed and coded during the first year of the Longitudinal Study. The underlined letters in the Interaction and Feedback categories are the abbreviations used to code photocopies. The next section describes how to prepare code sheets for data entry.

Insert Figure 7 about here.

Preparing Coding Sheets

After coding a photocopy of the transcript, the final step in preparing the data for entry is to transform the Activity, Interaction, and Feedback categories to numerical codes on coding sheets. A portion of a coding sheet appears below as Figure 8.

Insert Figure 8 about here.

Observers completed the heading for the coding sheet first. The heading includes the teacher's name, observation #, date, identification numbers for children absent during the

observation, the observer's number, and the page number of the coding sheet. Next, we entered the "official" starting time for the school day in box 1. This was either 8:30 or 9:00 for a.m. or whole day classes, depending upon the school. Likewise, we recorded either 12:15 or 12:30 as the official starting time for p.m. classes. We recorded the elapsed time, the time the Activity actually took, in box 2. Next, we put the activity category's number in box 3. If, for example, Opening Exercises began at 8:30 and took 7 minutes , we recorded 8:30 in box 1, 7 in box 2, and 13 in box 3. At the end of each observation, minutes should match the total for the school day (e.g., 150 or 300 for kindergartens). Generally, we coded few interactions during Opening Exercises, so boxes 4, 5, and 6 probably remained empty. We put a dot in each empty box to show data missing for those lines.

If Opening Exercises took 7 minutes, the time in box 7 was 8:37. If the second Activity was Decoding, and it took 19 minutes, we entered 19 in box 8, and 23 in box 9. Next, we entered numerical codes for each interaction line in the transcript. If the teacher called upon several children consecutively, or repeated another type of feedback, we repeated the interaction category's code each time we entered a feedback or to whom code, one entry per box, e.g., if interaction 51 was asked of the group 9 times, we entered 51, 9 times, with the third digit, 9, to indicate sustained feedback. These entries

are made horizontally on the Coding Sheet until the activity changes and then boxes for Time, Elapsed Time, and Activity are completed anew.

The transcript and coding sheet segments in Figure 9 show how we transferred from the abbreviated word categories on the transcripts to the numerical code sheets. Note the numbered letter codes on the transcripts but page numbers alone as place markers on the coding sheets.

Insert Figure 9 about here.

This is the second page of a transcript made during an observation 1/23/84. The code sheet shows that Opening Exercise began at 8:30, and took seven minutes. There were no instructional interactions during either Opening Exercises or Music, which began at 8:37 and lasted 5 minutes. The third activity, Decoding, also lasted five minutes. There were twenty-two instructional interactions during decoding. First, there was a Background Knowledge question (11) with no feedback (thus the dot) directed to the whole class (99). The next question (a #51) was on Letter Sounds. It also went to the whole class (99). The third and fourth entries were procedural instruction to the whole class. This teacher's fifth question was again on Letter Sounds (51), but this time it went to an individual child, #24. Then

the teacher gave negating feedback (13), telling #24 what his/her response was not, "Soap was for last week."

The next fourteen Letter Sound (51) questions went to individuals, and there was no feedback in response to any of these turns. The twentieth turn went to the whole class. Decoding concluded with two letter naming questions again to the whole class. The final two activities recorded on this code sheet are for Bathroom (11) which began at 8:47 and lasted for eight minutes, and for Independent Work Preparation (34) which took ten minutes.

This is the first coding sheet for this teacher in this observational round. Had there been more instructional interactions during decoding, those entries would have continued in the second columns for "Questions, Feedback, and To." The final section of this manual describes how we worked to obtain accurate and reliable data.

Reliability

Observers were trained to use this observation and coding system by first reading the manual and discussing categories and procedures. Second, all observers listened to audiotapes collected from a variety of classrooms and coded from the tapes. Inter-rater reliablity during initial training averaged above

observation before beginning his/her first round.

Next, we held regular (weekly, and then monthly) meetings to; review procedures, randomly check transcripts, and check our

reliability by simultaneously coding transcripts. Inter-rater reliability in these sessions was consistently above .91.

We monitored our actual observations in several ways. First, each observer used the audio tapes as backups to be certain we had recorded a teacher's instructional interactions accurately in our transcripts. Second, we sent two observers into each classroom for a full day's observation early in our observational rounds. Then, we compared randomly selected portions of the two observers' transcripts and coding sheets to assess their reliability. Inter-observer reliability averaged above .95.

Third, we had regularly assigned observers to each classroom, but observers switched classrooms at least once so that each teacher was observed by at least three observers during the nine rounds. These procedures facilitated accurate data collection by regular observers but helped to prevent observers from becoming so accustomed to one teacher that they grew inaccurate with their observations.

Finally, whenever there was concern that an observer either left things out or added inappropriately to a transcript, other observers listened to the first observer's audio tapes to check the accuracy of the transcripts. In addition, observers routinely discuss coding issues and transposed each other's transcripts to code sheets. Thus, two or more observers worked in some way with the data for each observation. Finally, we

checked printouts of the instructional interaction entry frequencies to correct incorrectly entered data before beginning analyses.

Our goal is to have accurate transcripts that represent typical school days for each classrooms in the Longitudinal Study. Our primary goal for our coding system is that we have discrete categories that observers use reliably to describe instructional interactions in activities related to literacy and science.

References

Anderson, L. M., Evertson, C. M., & Brophy, J. E. (1979). An experimental study of effective teaching in first-grade reading groups. Elementary School Journal, 79, 193-322.

Barr, R. (1983, April). A sociological approach to classroom instruction. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Brophy, J., Mahaffey, L., Greenhalgh, C. A., Ogden, J. E., Selig, H. M. (1975). Coding system for the first grade reading group study (Report No. 75-2). Research and development center for teacher education, The University of Texas at Austin.

Fisher, C. W., Filby, N. N., Marliave, R., Cahen, L. S., Dishaw, M. M., Moore, J. E., & Berliner, D. C. (1978). Teaching behaviors, academic learning time, and student achievement: Final report of Phase III-B, Beginning Teacher Evaluation Study. San Francisco: Far West Educational Laboratory for Educational Research and Development.

LaBerge, D., & Samuels, S. J. (1977). Basic processes in reading. Hillsdale, NJ: Erlbaum.

Meyer, L. A. (1984, April). Teachers' comprehension questions: What functions might they serve? Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Pearson, P. D., & Johnson, D. D. (1978). Teaching reading comprehension. New York: Holt, Rinehart & Winston.

Raphael, T. E. (1980). The effects of metacognitive awareness training on students' question answering strategies. Unpublished doctoral dissertation, University of Illinois, Urbana.

Soar, R. S. (1973). Follow-through classroom process measurement and pupil growth (1970-71): Final report. Gainesville: College of Education, University of Florida.

Stallings, J. A., & Kaskowitz, D. (1974). Follow-through observation evaluation, 1972-73. Menlo Park, CA: Stanford Research Institute.

Figure 1

Notebook Before Observation

Begins

PI PG CI CG Laurel 4

Mayberry, AM

1/25/84

TAPE ON SIDE 1

8:30

Figure 2

Classroom Diagram

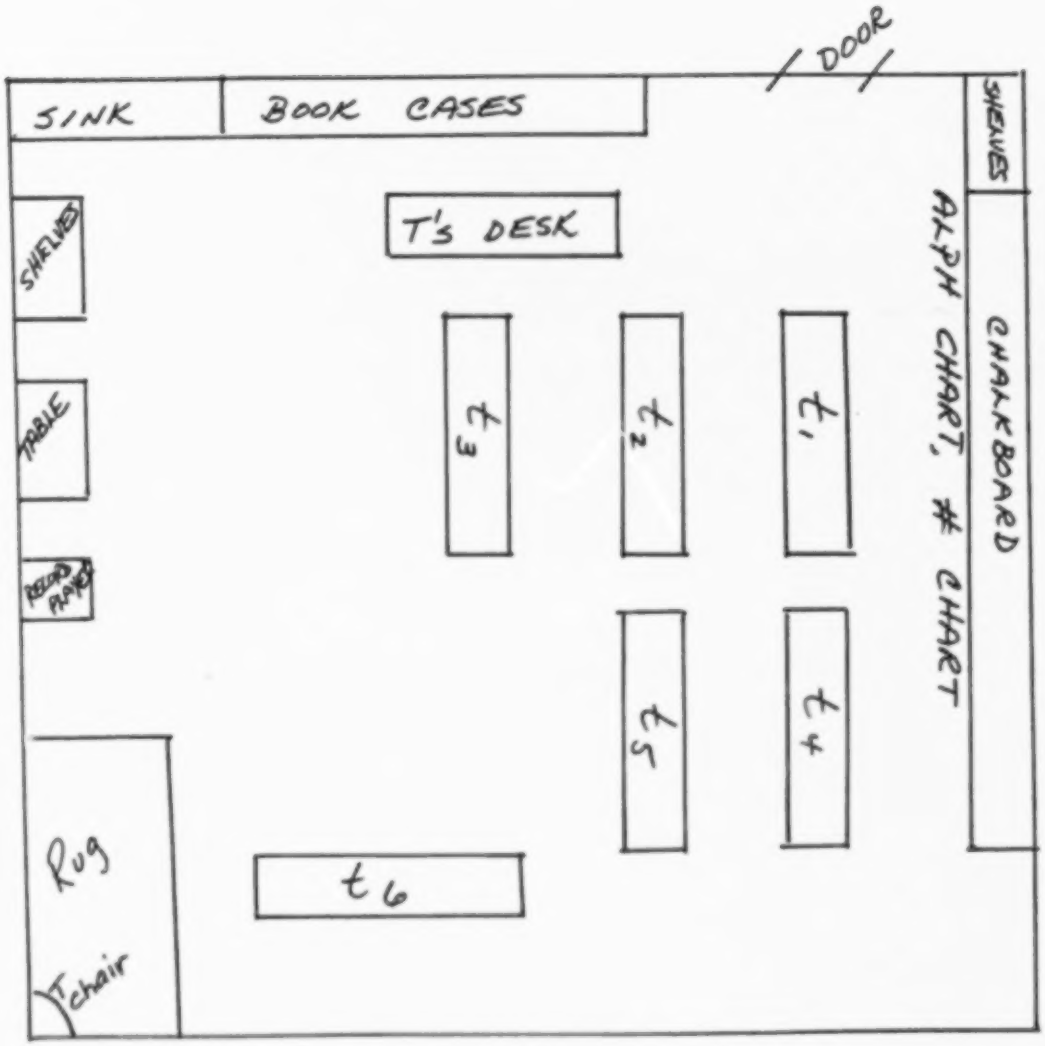

Figure 3

First Page of a Transcript

(1)

P I	P G	C I	C G	11/29/83
	1	IIII	IIII	

Teacher, AM

TAPE ON SIDE 1

	8:30	Collecting milk money
	8:35	Pledge
	8:38	c to rug
TE		What does Mr. B. have on him → 17
LN		What letter does Mr. B. have on him? 17-T
		T→E Let's listen to Mr. B's song.
	8:41	All c on rug. 9 gazing around.
		Mr. B's song plays.
	8:43	Mr. B sent in
BK		Rem. those 3 boys of beautiful buttons:
		How they broke their promise
		Let's see if
TE		What's this a picture of?
BK		Why sent him a bicycle?
TE		What's this a picture of?
BK		Why sent?
BK		What else sent?
TE		What's this a picture of?
BC		What does baby begin with?
BC		" " boy " "
BK		" else does Mr. B want?
BK		How many boys here love GI Joes?
TE		What's this?
BC		What does it begin with?

Figure 4

Transcript with "Sweep" Data

(13)

P1 PG C1 CG 12/15/83

HH HH HH 1

III

(Special c much more integrated.)

12:58 t_1 ✓ 8+16

t_2 16 ✓ 27+25 OT

SWEEP 6 OT t_3 3+5 ✓ 14+19 OT

PA_1 7, 10, 12, 6 ✓

PA_2 4, 26, 2 ✓

PA_3 17 ✓ 23, 24, 11 OT

1:03 t_1 14, 8, 15 OT

t_2 16+27 ✓

SWEEP 2 OT t_3 3, 19, 2 ✓

PA_1 7, 10, 12 ✓

PA_2 24, 11, 26, 13, 6 ✓

PA_3 17, 25, 1 ✓ 9+23 OT

1:05 MM @ door for 25, 27, +19 - they leave

1:08 t_1 5+8 OT

t_2 16 ✓

t_3 3 ✓

PA_1 6, 26, 13, 7, 10, 12 @ chair

PA_2 11+24

PA_3 17 @ puzzle

Activity Time

Transition & Move

1:09 Bell rings

T > E Clean up . . . .

1:18 T+C beg to leave

54

Figure 5

Transcript with Consecutive Sweeps

PI	PC	CI	CG	⑥
		||| ||| |||	1	2/1/84

9:42	t_1 10T	PA_1 ✓	
SWEEP 1, 0T	t_2 —	PA_2 ✓	
	t_3 ✓	PA_3 ✓	
9:47	t_1 20T	PA_1 ✓	
SWEEP 2 4, 0T	t_2 —	PA_2 ✓	
	t_3 20T	PA_3 ✓	
9:52	t_1 20T	PA_1 ✓	
SWEEP 3 4, 0T	t_2 10T	PA_2 ✓	
	t_3 10T	PA_3 ✓	
9:57	t_1 10T	PA_1 ✓	
SWEEP 4 3, 0T	t_2 10T	PA_2 ✓	
	t_3 10T	PA_3 ✓	
10:02	t_1 10T	PA_1 10T	
SWEEP 5 5, 0T	t_2 10T	PA_2 ✓	
	t_3 20T	PA_3 ✓	
10:07	t_1 20T	PA_1 ✓	
SWEEP 6 5, 0T	t_2 ✓	PA_2 10T	
	t_3 10T	PA_3 10T	

10:12 T rings bell

99 Don't need to clean up . . . .

Figure 6

Coded Transcript

P1 P6 C1 CG (10)

HHT HHT HHT HHT HHT 1 11 12/15/83

11:13 FLIPPED TAPE, SIDE 4

11:14 18 prepares to leave
T>E I'm going to read
Let's pray A partridge in a pear tree (3X)
I read it. When I point to it, you do it
T>E Slide up to look @ these pictures
Think @ what your home ....
Name of story is ....
T>E Part. in a Pear Tree (12X)
T reads + C fill in line.
(17 back to TO.)
T>E I'm going to leave book open
T>E What does fortunate mean?

Teacher Reading Story

11:23

Transition Lunch + Rest

12:25 Lights on

12:28

Figure 7

CATEGORIES AND CODES

ACTIVITIES

10 Non-Instructional Time
11 snack, lunch, rest, recess, bathrm.
12 free play (children choose)
13 open/close activities
14 transition

whole class 99
heterog 800
homog 900 higher # higher achiev.
4th digit 8 NOT meet daily
3rd digit # of groups
boys 2 girls 1

20-39 Teacher Directed Instruction

21 Art, Music, Cut & Paste, P.E.
22 Science
23 Decoding, NOT followed by written text
24 Math
25 Social Studies (incl. holidays)
26 Handwriting
27 Language
28 Decoding followed by written text
29 Reading (in a reading bk)
30 Workbook assignments
31 Teacher-Assigned-Centers
32 Show & Tell, News, Sharing
33 Adult Reading
34 Independent Wk. Preparation
35 Test taking Practice
36 Library
37 Spelling
38 Writing (Composition)
39 Language experience
40 Independent work
41 Sustained silent reading
42 indiv. child reads to class self-selected material

50 Other
51 movie, party, rehearsal, fire drill, etc.
52 testing

INTERACTIONS (all are teacher-initiated)

10-Text-Tied Comprehension
11 Background Knowledge
12 Vocabulary
13 Text Explicit — when adult reads
14 Text Implicit
15 Opinion
16 Sequencing, Prediction
17 Word Comprehension
18 Sentence Comp: TE — when child reads
19 Sentence Comp: TI
20 Summary
21 Procedural Q's or Directives (instructional)
22 Paragraph Comp., Text Implicit

30 Story Grammar Referents
31 Setting: TE
32 Plot: TE
33 Character: TE
34 Theme: TE
35 Setting: TI
36 Plot: TI
37 Character: TI
38 Theme: TI
— narrative text when children reading

40 Other
41 General Probe
42 General Review
43 Correcting Work

50 Decoding
51 Letter sds (cons. and vowels)
52 Whole Word
53 Letter Naming, writing letters, cap, lc dist.
54 Spelling
55 Rhyming (oral task only)
56 Sounding Out Words
57 Sentence Reading
58 Paragraph Reading
59 Blending (oral task only)

60 Oral Language Development
61 Word Repetition
62 Phrase or Sent. Repetition
63 Word Production
64 Phrase or Sentence Production

70 Grammar
71 Parts of Speech
72 Usage/contractions/plurals/possessives
73 Capital Letters (as in proper nouns, etc.)
74 Punctuation/abbrev./alphabetize

81 Phonics Rules
82 Classification

86 Passage Reading longer than paragraph

FEEDBACK

10 Lauds Task
11 Calls on Another, Ignores
12 Repeats, Reconfirms, Confirms
13 Negates
14 Repeats Question (same question same child)
15 T Models or Gives Answer
16 T Leads
17 Gives Rule
18 Encourages, Gives Hint
19 Homewk Assign/Written feedback
20 Quality Dependent
21 Asks for Explanation
22 Teacher Extends
23 Teacher Suggests re-examination

3/5/85

BEST COPY AVAILABLE

Figure 8

Sample Coding Sheet

School Code _____

Teacher EXAMPLE # 1

Page 1

Round 4 Date 1/23/84

Obs # 6

Numbers of children absent 19

2 digits for Kindergarteners
3 digits for 1st graders

Time	Elapsed Time	Activity	QS	FB	To	→	QS	FB	To	→	QS	FB	To	→	QS	FB	To
1	2	3	4	5	6	→				→				→			
7	8	9				→				→				→			
						→				→				→			
						→				→				→			

Figure 9

Transcript and Completed Coding Sheet

PI PC OI CG

(2)

1/22/84

8:40 5 Open Thing

8:41 T>99 Let do dat by the creek bank

8:42 Settle Away Fighting

1 BK-99 What was the letter we had last wk?

99 > T S

And we know all the letters of the alphabet

This wk we're going on letter B.

This p. here showed a ball bouncing

2 BC-99 Do the words beg @ b?

ball & bouncing

3 PI-99 Fry " "

Let's see how you match

4 PI-99 Let's see how many words beg @ b

5 BC FB 11-24 24 - Soup same for last week

6 BC-20 20 - ✓

7 BC-22 22 ✓

8 BC-4 4 ✓

9 BC-15 15 ✓

10 BC-5 5 ✓

11 BC-6 6 ✓

12 BC-13 13 ✓

13 BC-7 8 ✓

14 BC-11 11 ✓

15 BC-9 9 ✓

16 BC-1 1 ✓

17 BC-17 17 ✓

18 BC-23 23 ✓

19 BC-21 21 ✓

8:45 Now I'm going to show you how we write

20 HW FB 11-99 V on board

The cup B takes up the upstairs

the upstairs.

21 HW-99 Some from ceiling to floor

22 HW-99 Take tub boy off to make b

Teacher Example 1 1

Round 4 Date 1/23/84

Page 1

Obs # 6

Numbers of children absent 19

Time	Elapsed Time	Activity	QS	FB	To	QS	FB	To	QS	FB	To	QS	FB	T
8:30	7	13	.	.	.									
9:37	5	21	.	.	.									
8:42	5	23	11	.	99	51	.	99	21	.	99	21	.	9
			51	13	24	51	.	20	51	.	22	51	.	4
			51	.	15	51	.	5	51	.	6	51	.	1
			51	.	8	51	.	11	51	.	9	51	.	1
			51	.	17	51	.	23	51	.	21	53	.	9
			53	.	99	53	.	99						
8:47	8	11	.	.	.									
8:55	10	34	11	.	99									

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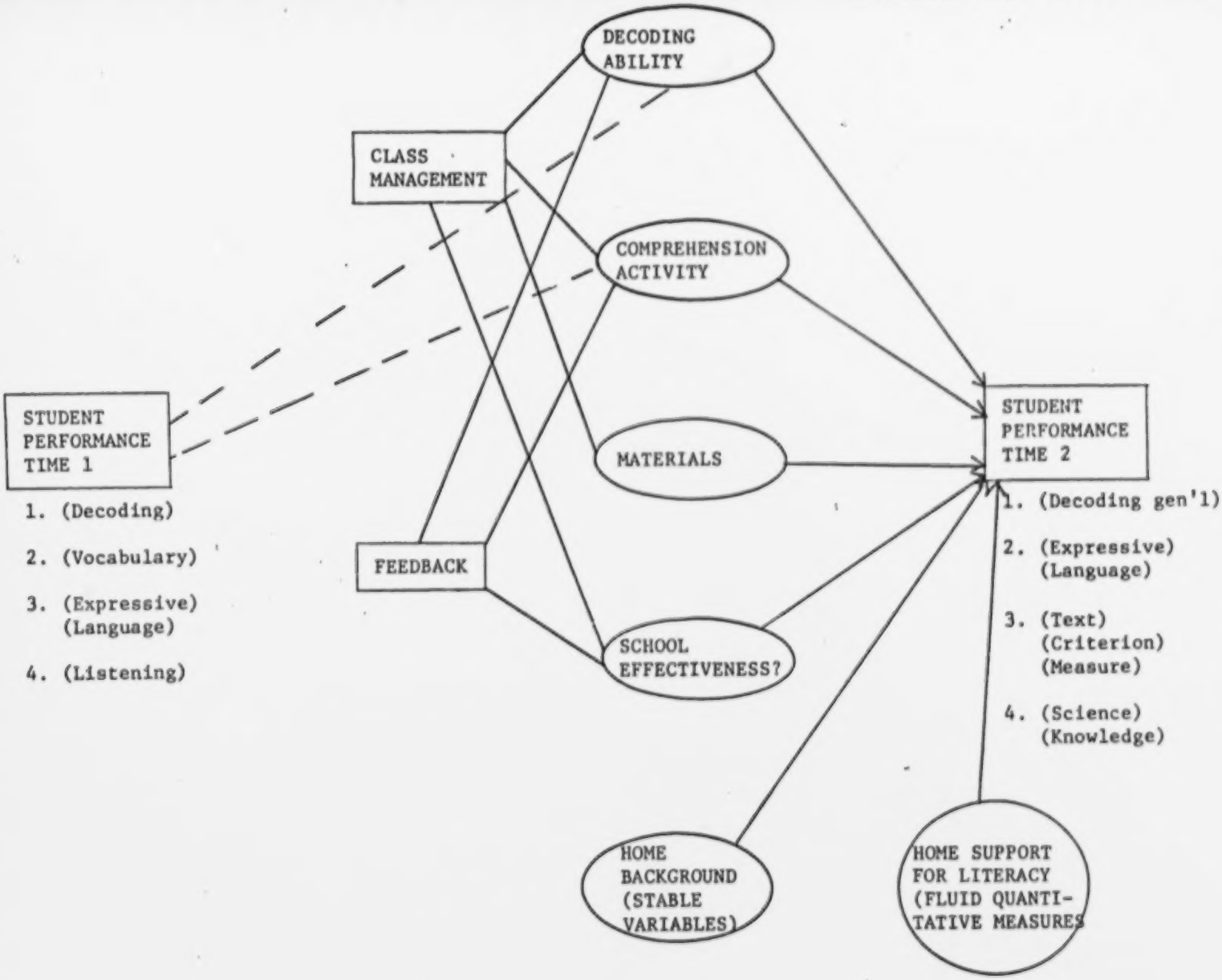
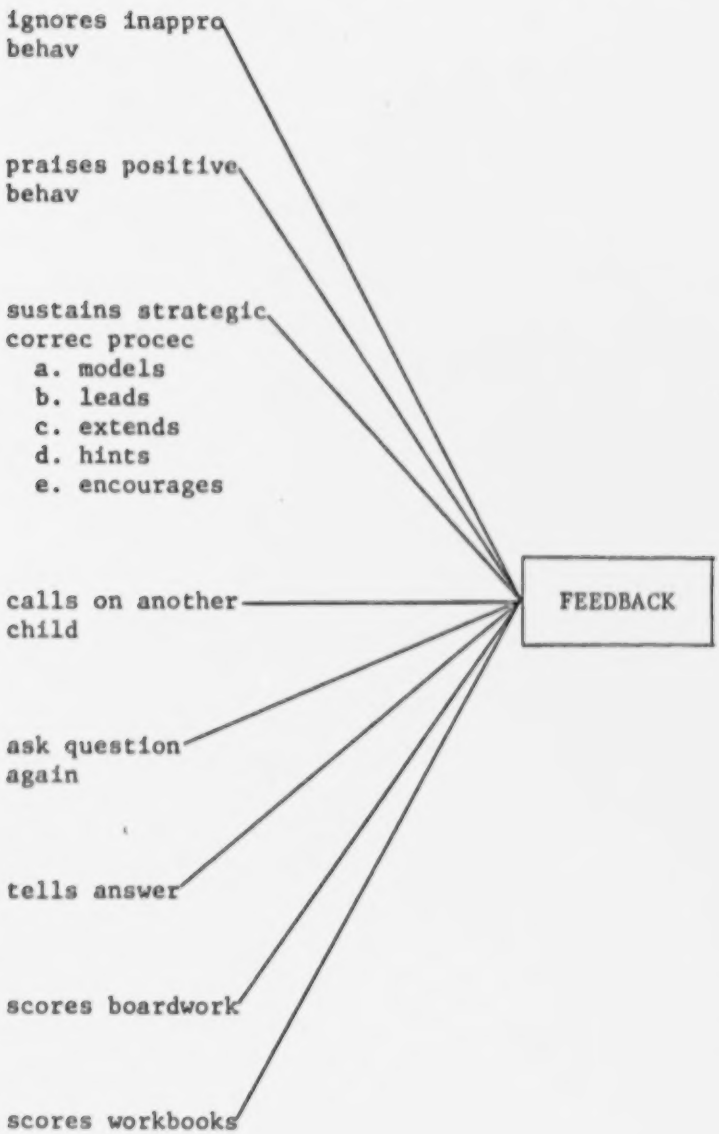
APPENDIX

STRUCTURAL MODEL FOR THE LONGITUDINAL STUDY



Measurement Model for Feedback



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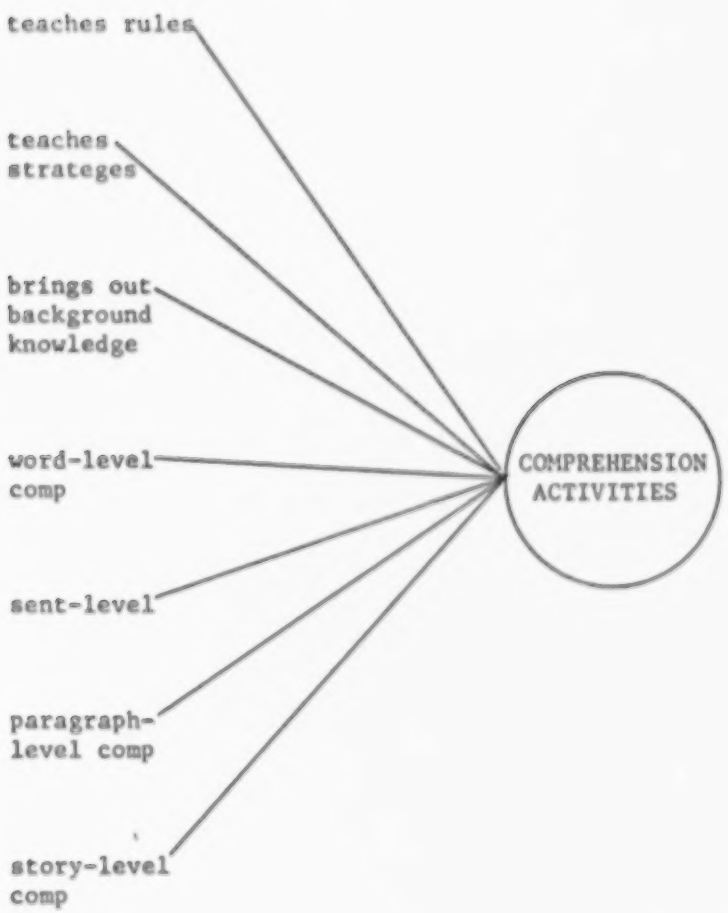
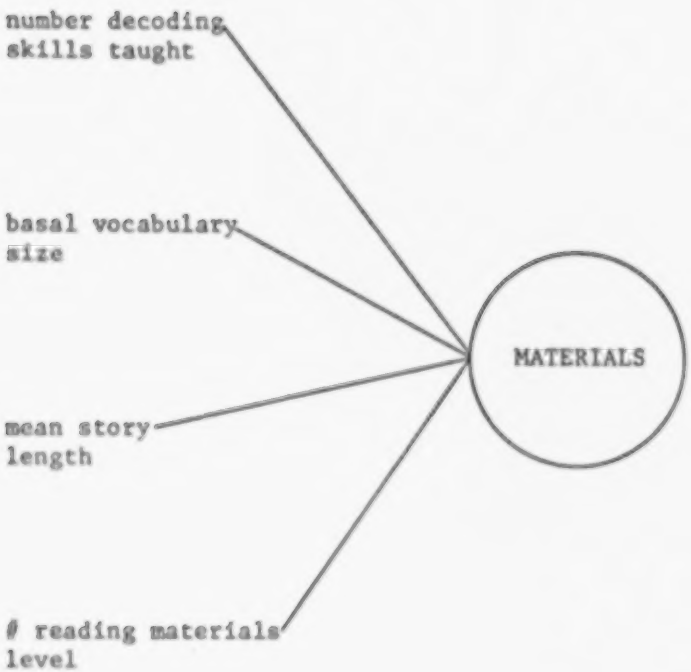
Measurement Model for Decoding

Measurement Model for Comprehension



Measurement Model for Materials



Measurement Model for Classroom Management